

wind storm, sweeping a heavy sea over the marine promenade, causing a tremendous surf, and badly damaging two vessels. Spencer, Ia., 5th, about 4 p. m. dark heavy clouds gathered rapidly in the northwest and southwest, and moved eastward toward a common point. Upon meeting, the clouds could be seen rolling over each other and tumbling about in a fearful manner, followed soon after by the formation of a long, narrow cloud like a water-spout. Twenty buildings were blown down and two persons killed. Fields of corn in the path of the storm were left as flat as if rolled. All crops were beaten into the ground; width of storm's path from a half to three-fourths of mile; length about 25 miles. Cleveland, Ohio, 12th, about 8 p. m., violent wind storm visited the east side of the city; roof of the Union Freight Depot torn off, a heavy timber 20 feet long and 9 inches square was carried 60 feet; three pinnacles from St. Paul's Church blown down; fences, shade trees, awnings and chimneys were quite generally damaged, and in many cases completely demolished; lumber piles were scattered in every direction; the lake as far as the eye could reach was lashed into a foaming mass, causing considerable damage to vessels; sailors along the docks stated that the squall was the most violent for many years. Petersburg, Va., 13th, about 5 p. m., heaviest wind storm for years; rain fell in torrents, and the wind reached an estimated velocity of over 60 miles per hour; many buildings were unroofed and others demolished; trees, fences, signs, awnings and chimneys were destroyed in various parts of the city; beyond the city the loss to farmers from damage to their crops and orchards was very great. Franklin, N. C., 13th, very violent southwest storm; path of destruction from 1 to 1½ miles wide. Chambersburg, Pa., 13th, 1.50 p. m., violent southwest storm; several houses and one church demolished; many buildings were unroofed; trees and fences were blown down throughout the course of the storm. Milton, Pa., 6th, violent southwest storm; several buildings and also fences and trees blown down; path of destruction narrow. Fort Barrancas, Fla., 3d, violent gale with heavy and continuous rain; trees uprooted, buildings unroofed, and two vessels driven upon the beach and completely wrecked.

## RELATIVE HUMIDITY.

The percentage of mean relative humidity for the month ranges as follows: New England, 74 to 90; Middle Atlantic states, 54 to 84; South Atlantic states, 56 to 82; Eastern Gulf states, 66 to 78; Western Gulf states, 50 to 80; Ohio Valley and Tennessee, 52 to 69; Lower Lake region, 62 to 71; Upper Lake region, 64 to 79; extreme Northwest, 60 to 66; Upper Mississippi valley, 53 to 80; Lower Missouri valley, 56 to 79; Northern Slope, 35 to 57; Middle Slope, 55 to 76; Southern Slope, 48 to 67; Rio Grande valley, 54 to 64; Southern Plateau, 55 to 71; Middle Plateau, 24 to 37; Northern Plateau, 32 to 62; North Pacific coast region, 63 to 77; Middle Pacific coast region, 35 to 79; South Pacific coast region, 50 to 73.

## VERIFICATIONS.

*Indications.*—The detailed comparison of the tri-daily indications for August, with the telegraphic reports for the succeeding twenty-four hours, shows the general percentage of verifications to be 88.8 per cent. The percentage for the four elements are: Weather, 88.4; wind 85.4; temperature, 91.4; barometer, 90.1 per cent. By geographical districts they are: For New England, 89.7; Middle Atlantic states, 90.3; South Atlantic states, 91.3; Eastern Gulf states, 91.7; Western Gulf states, 95.1; Lower Lake region, 92.7; Upper Lake region, 87.0; Tennessee and Ohio Valley, 88.7; Upper Mississippi Valley, 80.7; Lower Missouri Valley, 80.1; Northern Pacific coast region, 67.9; Central Pacific coast region, 100.0; Southern Pacific coast region, 100.0. There were 92 omissions to predict (49 being due to the absence of reports from the Pacific coast) out of 3,813, or 2.4 per cent. Of the 3,721 predictions that have been made, 100, or 2.68 per cent., are considered to have entirely failed; 71, or 1.91 per cent., were one-fourth verified; 414, or 11.13 per cent., were one-half verified; 229, or 6.15 per cent., were three-fourths verified; 2,907, or 78.13 per cent., were fully verified, so far as can be ascertained from the tri-daily reports.

*Cautionary Signals:* Sixty cautionary signals were displayed during the month, of which 45, or 75.0 per cent., were fully justified by winds of 25 miles per hour or over, at or within a radius of 100 miles of the station. No off-shore signals were displayed. The above does not include signals ordered at display stations where the velocity is only estimated. Seventy-six winds of twenty-five miles, or over, were reported, for which no signals were ordered. Fourteen signals were ordered late.